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EXAMINER

STARKS, WILBERT L

ART UNIT	PAPER NUMBER
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2121

DATE MAILED: 09/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/808,101

Applicant(s)

CHEN, YUAN YAN

Examiner

Wilbert L. Starks, Jr.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 June 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. §101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

the invention as disclosed in claims 1-20 is directed to non-statutory subject matter.

2. Claims 1-4 and 8-20 are not claimed to be practiced on a computer, therefore, it is clear that the claims are not limited to practice in the technological arts. On that basis alone, they are clearly nonstatutory.

3. Regardless of whether any of the claims are in the technological arts, none of them is limited to practical applications in the technological arts. Examiner finds that *In re Warmerdam*, 33 F.3d 1354, 31 USPQ2d 1754 (Fed. Cir. 1994) controls the 35 U.S.C. §101 issues on that point for reasons made clear by the Federal Circuit in *AT&T Corp. v. Excel Communications, Inc.*, 50 USPQ2d 1447 (Fed. Cir. 1999). Specifically, the Federal Circuit held that the act of:

...[T]aking several abstract ideas and manipulating them together adds nothing to the basic equation. *AT&T v. Excel* at 1453 quoting *In re Warmerdam*, 33 F.3d 1354, 1360 (Fed. Cir. 1994).

Examiner finds that Applicant's classification of a "thing" references are just such abstract ideas.

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4. Examiner bases his position upon guidance provided by the Federal Circuit in *In re Warmerdam*, as interpreted by *AT&T v. Excel*. This set of precedents is within the same line of cases as the *Alappat-State Street Bank* decisions and is in complete agreement with those decisions. *Warmerdam* is consistent with *State Street*'s holding that:

Today we hold that *the transformation of data, representing discrete dollar amounts, by a machine through a series of mathematical calculations into a final share price*, constitutes a practical application of a mathematical algorithm, formula, or calculation because it produces 'a useful, concrete and tangible result' -- *a final share price momentarily fixed for recording purposes and even accepted and relied upon by regulatory authorities and in subsequent trades.* (emphasis added) *State Street Bank* at 1601.

5. True enough, that case later eliminated the "business method exception" in order to show that business methods were not per se nonstatutory, but the court clearly *did not* go so far as to make business methods *per se* statutory. A plain reading of the excerpt above shows that the Court was *very specific* in its definition of the new *practical application*. It would have been much easier for the court to say that "business methods were per se statutory" than it was to define the practical application in the case as "...the transformation of data, representing discrete dollar amounts, by a machine through a series of mathematical calculations into a final share price..."

6. The court was being very specific.

7. Additionally, the court was also careful to specify that the "useful, concrete and tangible result" it found was "a final share price momentarily fixed for recording purposes and even accepted and relied upon by regulatory authorities and in subsequent trades." (i.e. the trading activity is the further practical use of the real world

monetary data beyond the transformation in the computer – i.e., “post-processing activity”.)

8. Applicant cites no such specific results to define a useful, concrete and tangible result. Neither does Applicant specify the associated practical application with the kind of specificity the Federal Circuit used.

9. Furthermore, in the case *In re Warmerdam*, the Federal Circuit held that:

...[T]he dispositive issue for assessing compliance with Section 101 in this case is whether the claim is for a process that goes beyond simply manipulating ‘abstract ideas’ or ‘natural phenomena’ ... As the Supreme Court has made clear, ‘[a]n idea of itself is not patentable, ... taking several abstract ideas and manipulating them together adds nothing to the basic equation.’ *In re Warmerdam* 31 USPQ2d at 1759 (emphasis added).

10. Since the Federal Circuit held in *Warmerdam* that this is the “dispositive issue” when it judged the usefulness, concreteness, and tangibility of the claim limitations in that case, Examiner in the present case views this holding as the dispositive issue for determining whether a claim is “useful, concrete, and tangible” in similar cases.

Accordingly, the Examiner finds that Applicant manipulated a set of abstract “things” to solve purely algorithmic problems in the abstract (i.e., what *kind* of “thing” is used?

Algebraic word problems? Boolean logic problems? Fuzzy logic algorithms?

Probabilistic word problems? Philosophical ideas? Even vague expressions, about which even reasonable persons could differ as to their meaning? Combinations

thereof?) Clearly, a claim for manipulation of “things” is provably even more abstract (and thereby less limited in practical application) than pure “mathematical algorithms”

which the Supreme Court has held are per se nonstatutory – in fact, it *includes* the expression of nonstatutory mathematical algorithms.

11. Since the claims are not limited to exclude such abstractions, the broadest reasonable interpretation of the claim limitations includes such abstractions. Therefore, the claims are impermissibly abstract under 35 U.S.C. §101 doctrine.

12. Since *Warmerdam* is within the *Alappat-State Street Bank* line of cases, it takes the same view of “useful, concrete, and tangible” the Federal Circuit applied in *State Street Bank*. Therefore, under *State Street Bank*, this could not be a “useful, concrete and tangible result”. There is only manipulation of abstract ideas.

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13. The Federal Circuit validated the use of *Warmerdam* in its more recent *AT&T Corp. v. Excel Communications, Inc.* decision. The Court reminded us that:

Finally, the decision in *In re Warmerdam*, 33 F.3d 1354, 31 USPQ2d 1754 (Fed. Cir. 1994) is not to the contrary. *** The court found that the claimed process did nothing more than manipulate basic mathematical constructs and concluded that 'taking several abstract ideas and manipulating them together adds nothing to the basic equation'; hence, the court held that the claims were properly rejected under §101 ... Whether one agrees with the court's conclusion on the facts, the holding of the case is a straightforward application of the basic principle that mere laws of nature, natural phenomena, and abstract ideas are not within the categories of inventions or discoveries that may be patented under §101. (emphasis added) *AT&T Corp. v. Excel Communications, Inc.*, 50 USPQ2d 1447, 1453 (Fed. Cir. 1999).

14. Remember that in *In re Warmerdam*, the Court said that this was the dispositive issue to be considered. In the *AT&T* decision cited above, the Court reaffirms that this is the issue for assessing the "useful, concrete, and tangible" nature of a set of claims under §101 doctrine. Accordingly, Examiner views the *Warmerdam* holding as the dispositive issue in this analogous case.

15. The fact that the invention is merely the manipulation of *abstract ideas* is clear. The data referred to by Applicant's word "thing" is simply an abstract construct that does not limit the claims to the transformation of real world data (such as monetary data or heart rhythm data) by some disclosed process. Consequently, the necessary conclusion under *AT&T*, *State Street* and *Warmerdam*, is straightforward and clear. The claims take several abstract ideas (i.e., "things" in the abstract) and manipulate them together adding nothing to the basic equation. Claims 1-20 are, thereby, rejected under 35 U.S.C. §101.

16. Regarding the "system" recitals in claims 8-19 and the presumed "product of manufacture" claims in claims 5-7, the invention is still found to be nonstatutory. Any other finding would be at variance with current case law. Specifically, the Federal Circuit held in *AT&T v. Excel*, 50 USPQ2d 1447 (Fed. Cir. 1999) that:

Whether stated implicitly or explicitly, we consider the scope of Section 101 to be the same regardless of the form -- machine or process -- in which a particular claim is drafted. *AT&T v. Excel*, 50 USPQ2d 1447, 1452 citing *In re Alappat*, 33 F.3d at 1581, 31 USPQ2d at 1589 (Rader, J., concurring) (emphasis added.)

17. Examiner considers the scope of Section 101 to be the same regardless of whether Applicant *claims* a "process", "machine", or "product of manufacture". While the "system" recitals in the preambles of claims 8-19 make the claims ostensibly drawn to be "apparatus" claims, they are insufficient by themselves to limit the claims to statutory subject matter. Likewise, the presumed attempts to limit claims 5-7 to "product of manufacture" claims are insufficient by themselves to limit the claims to statutory subject matter. Examiner's position is clearly consistent with *Alappat*, and *AT&T* and is implicitly consistent with *Warmerdam* and *State Street*. Accordingly, those claims are also properly rejected.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. §112:
The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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18. Claims 1-20 are rejected under 35 U.S.C. §112, first paragraph because current case law (and accordingly, the MPEP) require such a rejection if a §101 rejection is given because when Applicant has not in fact disclosed the practical application for the invention, as a matter of law there is no way Applicant could have disclosed *how* to practice the *undisclosed* practical application. This is how the MPEP puts it:

("The how to use prong of section 112 **incorporates as a matter of law** the requirement of 35 U.S.C. 101 that the specification disclose as a matter of fact a practical utility for the invention.... If the application fails as a matter of fact to satisfy 35 U.S.C. § 101, then the application also fails as a matter of law to enable one of ordinary skill in the art to use the invention under 35 U.S.C. § 112."); In re Kirk, 376 F.2d 936, 942, 153 USPQ 48, 53 (CCPA 1967) ("Necessarily, compliance with § 112 requires a description of how to use presently useful inventions, **otherwise an applicant would anomalously be required to teach how to use a useless invention.**"). See, MPEP 2107.01(IV), quoting In re Kirk (emphasis added).

Therefore, claims 1-20 are rejected on this basis.

Response to Arguments

19. Applicant's arguments filed 21 June 2004 have been fully considered but they are not persuasive. Specifically, Applicant argues the following:

The Examiner has rejected claims 1-20 under 35 U.S.C. §101 as being directed to non-statutory subject matter. The Examiner relies largely on In re Warmerdam, and specifically, that court's statement that "taking several abstract ideas and manipulating them together adds nothing to the basic equation." In re Warmerdam, 33 F.3d 1354, 1360 (Fed. Cir. 1994). However, this statement is not a dispositive test for whether a claim is directed to statutory subject matter. Rather it is merely an extension of the well established concept that "abstract ideas" (along with natural phenomena and laws of nature) by themselves, cannot be patented. (emphasis added.)

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20. Applicant gives an incomplete statement of law in his argument. In the case *In re Warmerdam*, the Federal Circuit held that:

...[T]he dispositive issue for assessing compliance with Section 101 in this case is whether the claim is for a process that goes beyond simply manipulating 'abstract ideas' or 'natural phenomena' ... As the Supreme Court has made clear, '[a]n idea of itself is not patentable, ... taking several abstract ideas and manipulating them together adds nothing to the basic equation'. In re Warmerdam 31 USPQ2d at 1759 (emphasis added).

21. The Federal Circuit held in *Warmerdam* that this is the "dispositive issue" regarding the assessment of "abstract ideas" when it judged the usefulness, concreteness, and tangibility of the claim limitations in that case. Examiner in the present case views this holding as the dispositive issue for determining whether a claim is "useful, concrete, and tangible" in similar cases involving "abstract ideas".

22. Applicant further argues:

In the present case, each of the claims produces a useful, concrete and tangible result. Claims 1-2 recite a method of classifying something into one or more classes. It is true that a mathematical manipulation is involved, but that alone is not dispositive. The useful result is the determination of a class to which the thing belongs, and a confidence factor to indicate the certainty that the classification was correct. This is a tangible, concrete, useful result. The specification provides examples of things that can be classified using the method. Images of faces can be recognized. Horse colic can be diagnosed based on symptoms. Many different types of data can be classified using these useful method claims. (emphasis added.)

23. In short, Applicant asserts that "a method of classifying something into one or more classes" is statutory.

24. Examiner disagrees noting that the idea of "something" includes the concept of undefined mathematical variables. Thereby, showing that the claimed invention

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encompasses mathematical algorithms, which are per se nonstatutory and, thereby has not been limited to any patentable subject matter.

25. Applicant argues further that:

Claims 3 and 4 recite a method of training a machine to classify a thing as a member of one or more classes. The useful result is that a machine becomes trained to perform a classifying operation as a result of the method. It matters not that the particular type of thing classified is not spelled out. Applicants are not required to individually claim all of the possible useful permutations of this method. Claim 3 has also been amended to further clarify that there is a useful, concrete, tangible result. That result is that a thing gets classified based on the weights generating during the training of the machine. (emphasis added.)

26. Again, Examiner disagrees. "Training" is the same as "programming"...there is no significant difference between the two. Merely programming some arbitrary machine...say...a computer, for instance, is insufficient on its own to make the claims statutory. Applicant doesn't even show that the inputs in the claims are coming from some real-world external events or that the result is used in the real-world after its calculation, as shown in Arrhythmia and State Street.

Claims 15-19 are directed to a universal parallel distributed computation machine. Again, specific physical elements are recited, so these claims are well within §101 scrutiny. For example, claim 15 recites "an input layer and an output layer, said input layer having a plurality of input neurons." These are physical elements that remove the claim from any suggestion that it merely recites an abstract idea.

Claim 20 recites a method of training a neural network. The tangible, concrete, useful result is a trained neural network. The network is trained by repeating the method steps recited.

27. Regarding the "system" recitals in claims 15-19, the invention is still found to be nonstatutory. Any other finding would be at variance with current case law. Specifically, the Federal Circuit held in *AT&T v. Excel*, 50 USPQ2d 1447 (Fed. Cir. 1999) that:

Whether stated implicitly or explicitly, we consider the scope of Section 101 to be the same regardless of the form -- machine or process -- in which a particular claim is drafted. *AT&T v. Excel*, 50 USPQ2d 1447, 1452 citing *In re Alappat*, 33 F.3d at 1581, 31 USPQ2d at 1589 (Rader, J., concurring) (emphasis added.)

28. In fact, claims 15-19 are not so much claims for machines as they are claims for the idea(s) of machines. How is this possible? These claims disclose only abstract neurons and connections. Nothing about what kinds of neurons, what kinds of connections, or even what kind of training is disclosed (even after Applicant stated that the training element is the main statutory element.)

29. In fact, one of ordinary skill in the art would not know whether Applicant claims a "backpropagation" network, a "recurrent backpropagation" network, a "pulsed neural" network, a "holographic neural" network, a "reinforcement learning" network, a "counter-propagation" network, a "Hopfield circuit," a "competitive learning" network, a "Brownian annealing" network, an "adaptive resonance" network, or any of the other myriad possible networks. The methods for training each are radically different and the resulting capabilities of each system are, also, radically different. In fact, different types of neurons and different types of connections are used for many of these systems. An abstract claim for a set of "neurons" and "connections" does not define any of the possible machines...or even the components for a possible machine.

30. No particular "machine," as such, is claimed by Applicant ...only the abstract idea of a machine is claimed. Thus, §101 issues (and §112 first paragraph issues) are triggered.

31. If one can simply say "things" are being classified, one avoids the issue of what kind of structures are required to perform the classifications of the undisclosed "things". The claimed invention is devoid of any limitation to a practical application or structure. The claims are simply a bag of references to abstract, theoretical components with no guidance regarding what kind of components they are, how to put them together, or for what practical application they are to be used. On this basis, Examiner follows the Federal Circuit's guidance that the scope of §101 is the same whether method or machine...restated here for convenience:

Whether stated implicitly or explicitly, we consider the scope of Section 101 to be the same regardless of the form -- machine or process -- in which a particular claim is drafted. AT&T v. Excel, 50 USPQ2d 1447, 1452 citing In re Alappat, 33 F.3d at 1581, 31 USPQ2d at 1589 (Rader, J., concurring) (emphasis added.)

32. Applicant further argues:

The Examiner argues that claims 1-4 and 8-20 are not statutory subject matter because they are not practiced on a computer. However, whether or not something is practiced on a computer is not the relevant inquiry. Applicant is unaware of any requirement that methods be practiced on a computer. Rather, the inquiry, as stated above, is whether the claim produces a tangible, concrete, useful result. In the AT&T case cited by the Examiner, Excel incorrectly argued that process claims were not patentable because they lacked physical limitations. This reflected a misunderstanding of the law. Since the claims at issue were directed to a process, a structural inquiry was not necessary. AT&T, 172 F.3d at 1359. Similarly in this case, no structural inquiry is necessary. The methods claimed are not required to be practiced on a computer.

33. Whether something is practiced on a computer is the inquiry as to whether the invention is in the "technological arts". It is true that State Street Bank replaced the Freeman-Walker-Abele test from days of yore, but it did not replace the requirement that a computer-implemented invention needs to be practiced on a computer (e.g., on a "computer readable medium".) Casual observations of the current MPEP and/or the Computer-Implemented Inventions Guidelines would show the threshold test of being in the "technological arts" as a requirement and State Street Bank did not change this initial threshold.

34. Applicant argues further that:

The Examiner suggests that the use of the word "thing" makes several of the claims unpatentable. On the contrary, nothing about the word "thing" prevents a claim from being patentable. Even if the word "thing" represents an abstract idea, the relevant inquiry is whether the "thing" is manipulated to produce a tangible, concrete, useful result. In this case, each claim produces just such a result, as discussed above. Applicants are entitled to be their own lexicographer, and the word "thing" accurately represents that a wide variety of things can be classified according to embodiments of the present invention. Furthermore, Applicants are unaware of any specific prohibition of the word "thing." A search of the Patent Office patent database reveals 176 patents that have issued from 1976 to present with the word "thing" in the claims. Furthermore, Applicant is entitled to be his own lexicographer. Therefore, Applicant understands that the use of the word "thing," without more, does not prevent a claim from being directed to statutory subject matter. The word "thing" conveys that the claims are intended to cover a wide variety of classifiable "things." The generic word "thing" is appropriate, since the focus of the claims are not the particular type of "things" that are classified, but rather the manner in which they are classified. As explained above, each of the claims are directed to one of the four statutory classes of subject matter, and each of the claims produce a useful, concrete, tangible result.

35. Applicant says he discloses a "wide variety of things." Examiner believes that it is in reality an indefinite variety of "things". It is hard to imagine an idea more abstract than the word "thing" since it includes all "things" in the universe, past present and future.

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Yes, it includes Applicant's arguments referring to horse colic, but looking at the full scope of the claim for "things", it even includes indefinite mathematical variables as "things". As such, the claims can be seen as claims to mathematical equations without limitations to any practical applications: That is, the claims are per se nonstatutory.

36. Applicant justifies this by saying he is entitled to be his own lexicographer. True, Applicants may assume this responsibility, but the essential part of the lexicographer's job is to provide definitions of the terms he coins. Applicant has not done this, so having the right to be a lexicographer cannot justify these claims.

37. Applicant argues further:

The Examiner argues that claims require a transformation of data to qualify as statutory subject matter. On the contrary, transformation is not an inevitable requirement, but merely one example of how a mathematical algorithm may bring about a useful application. AT&T, 172 F.3d at 1358.

38. No, Examiner does not require this of all claims, as Applicant suggests. If Applicant claimed "cement", it would be statutory without any transformation in the claim because "cement" is a tangible thing -- hardly novel, but surely "useful, concrete (pardon the pun) and tangible." Regarding Applicant's method claims, Examiner takes the position the Supreme Court has always taken:

"A [statutory] process is a mode of treatment of certain materials to produce a given result. It is an act, or a series of acts, performed upon the subject-matter to be transformed and reduced to a different state or thing.... **The process requires that certain things should be done with certain substances, and in a certain order**; but the tools to be used in doing this may be of secondary consequence." See *Diamond v. Diehr*, 450 U.S. at 183-84, 209 USPQ at 6 (quoting *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1877)).

39. The Federal Circuit phrases the concept this way:

...[T]he dispositive issue for assessing compliance with Section 101 in this case is whether the claim is for a process that goes beyond simply manipulating 'abstract ideas' or 'natural phenomena' ... As the Supreme Court has made clear, '[a]n idea of itself is not patentable, ... taking several abstract ideas and manipulating them together adds nothing to the basic equation. In re Warmerdam 31 USPQ2d at 1759 (emphasis added).

40. One side is stated in the positive (the Diamond v. Diehr quote of Cochrane v. Deener) and the other is stated in the negative (the Warmerdam quotation.) They amount to the same: One cannot merely manipulate abstract ideas (i.e., "things") and expect the result to be statutory. A process requires that certain things be done to certain substances in a certain order. Applicant has disclosed no "substances" certain (as the Federal Circuit did in State Street...discrete dollar values were the substance(s) in that case) and has disclosed nothing certain to be done with the substance(s) (e.g., no specific training algorithm) and has disclosed no "order" certain in which the training tasks are to be performed. As such, Applicant's claims do not even satisfy the Supreme Court's definition of a "process" in the first place...therefore, if no patentable subject matter (such as a "process") is claimed, no statutory subject matter can be claimed.

41. Applicant argues further that:

The Examiner relies on Warmerdam for the proposition that "taking several abstract ideas and manipulating them together adds nothing to the based equation." However, that proposition is not decisive in this case. Warmerdam was decided long before the State Street Bank decision. The court was not considering the facts of that case under the current "useful, concrete, tangible result" analysis. Furthermore, the Examiner has not given a reason why the claims merely "take several abstract ideas and manipulate them together." Rather, the Examiner has simply stated that the claims fail § 101 muster, without further explanation. The claims of the present application are

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not merely taking abstract ideas and manipulating them together. As described above, each of the claims describes a useful, concrete, tangible result.

42. It doesn't matter that Warmerdam was decided before State Street. It is within the Alappat-Warmerdam-State Street-Excel line of cases. State Street looked back to Alappat as the turning point when the Federal Circuit started using the rationale it later used in State Street. In re Warmerdam was decided one month after Alappat and is still good law...it was even shown to be the proper way to reject cases (i.e., reaffirmed) in AT&T v. Excel:

Finally, the decision in In re Warmerdam, 33 F.3d 1354, 31 USPQ2d 1754 (Fed. Cir. 1994) is not to the contrary. *** The court found that the claimed process did nothing more than manipulate basic mathematical constructs and concluded that 'taking several abstract ideas and manipulating them together adds nothing to the basic equation'; hence, the court held that the claims were properly rejected under §101 ... Whether one agrees with the court's conclusion on the facts, the holding of the case is a straightforward application of the basic principle that mere laws of nature, natural phenomena, and abstract ideas are not within the categories of inventions or discoveries that may be patented under §101. (emphasis added) AT&T Corp. v. Excel Communications, Inc., 50 USPQ2d 1447, 1453 (Fed. Cir. 1999).

43. Applicant argues further that:

The Examiner has rejected claims 1-20 under 35 U.S.C. §112, first paragraph, due to the §101 rejection. Based on the arguments above, Applicant believes the §101 rejection should be withdrawn. Similarly, the rejection under §112 should also be withdrawn. The specification enables one of ordinary skill in the art to practice the invention as claimed. The specification also provides several examples of types of data sets which can be used by embodiments of the invention to classify something into one or more classes, and to provide a confidence factor, among other useful results. Applicants respectfully request that this rejection be withdrawn.

44. Examiner has shown throughout this action the myriad reasons why the §101 rejections should stand (and reasons for the §112 first paragraph rejections to stand independently of the §101 rejections.) On these bases, Examiner finds that the §101 and §112 rejections have been properly made and will not be withdrawn.

Conclusion

45. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

46. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Wilbert L. Starks, Jr. whose telephone number is (703) 305-0027.

Alternatively, inquiries may be directed to the following:

S. P. E. Anthony Knight	(703) 308-3179
After-final (FAX)	(703) 746-7238
Official (FAX)	(703) 746-7239
Non-Official/Draft (FAX)	(703) 746-7240

WLS

15 September 2004

Wilbert L. Starks, Jr.
Primary Examiner
Art Unit - 2121

